

# Syllabus

for course at first level

**The Economics of Uncertainty and Asymmetric Information**  
**Nationalekonomin om osäkerhet och asymmetrisk information**

**7.5 Higher Education  
Credits**  
**7.5 ECTS credits**

|                          |   |
|--------------------------|---|
| <b>Course code:</b>      | EC2110  |
| <b>Valid from:</b>       | Autumn 2018   |
| <b>Date of approval:</b> | 2013-09-10  |
| <b>Changed:</b>          | 2017-05-04  |
| <b>Department</b>        | Department of Economics   |
| <b>Main field:</b>       | Economics   |
| <b>Specialisation:</b>   | G1F - First cycle, has less than 60 credits in first-cycle course/s as entry requirements |

## Decision

This syllabus was approved by the board of the Department of Economics May 4, 2017.

## Prerequisites and special admittance requirements

Economics I, 30 credits, or the equivalent.

## Course structure

| Examination code | Name  | Higher Education Credits |
|------------------|---|--------------------------|
| 211A             | The Economics of Uncertainty and Asymmetric Information | 7.5                      |

## Course content

This course introduces the economic theory of uncertainty and asymmetric information. It discusses how incentives and optimal choices are affected by uncertainty, and the implications for the design of contracts. The focus is on various types of informational asymmetries and measures that can be undertaken to deal with these. Topics covered are the principal agent theory, moral hazard, adverse selection, signaling, screening and strategic interaction under uncertainty. Some of the practical applications examined are the analysis of measures to reduce exposure to risk, the supply and demand for insurance, the optimal risk distribution, market equilibrium under uncertainty and contract design.

## Learning outcomes

Upon completion of this course, the student is expected to be able to:

\* Describe the central components of the economic theory of uncertainty and asymmetric information. The student should be able to explain how methods of analysis can be applied in order to analyze the actions of economic actors in situations of uncertainty and asymmetric information. Using these tools of analysis the student should be able to explain the implications for economic outcomes, and how these can be dealt with through contractual arrangements in a socially and economically efficient way;

\* Perform practical calculations of problems that economic actors may encounter in situations of uncertainty and asymmetric information, and intuitively be able to explain how and why the selected method of calculation was used and how this may explain the results.

## **Education**

Instruction is given in the form of lectures and prepared calculation exercises. The language of instruction is English.

## **Forms of examination**

The course is examined on the basis of written examinations.

Students will receive letter grades on a seven-point scale related to the learning objectives of the course: Passing grades are A, B, C, D and E, where A is the highest grade and E the lowest. Failing grades are F and Fx, where F is lower than Fx.

Assessment criteria:

- \* A (Excellent): The student has a well-developed overall grasp of the central concepts in the economic theory of uncertainty and asymmetric information, and is capable of applying these to perform a coherent practical analysis of problems concerning uncertainty and asymmetric information which economic actors may encounter. Using the tools of analysis the student is able to explain how different economic outcomes arise, and how different results relate to assumptions about such factors as uncertainty, type of informational asymmetry and risk preferences.
- \* B (Very Good): The student has an overall grasp of the central concepts in the economic theory of uncertainty and asymmetric information, and is able to perform a coherent practical analysis of problems concerning uncertainty and asymmetric information which economic actors may encounter. The student is able to explain how different economic outcomes arise, and how different results relate to assumptions about such factors as uncertainty, type of informational asymmetry and risk preferences.
- \* C (Good): The student has a good command of the economic theory of uncertainty and asymmetric information, and is able to apply these theories to make practical calculations of problems concerning uncertainty and asymmetric information which economic actors may encounter. The student is able to give an account of how different economic outcomes arise, and how different results relate to assumptions about such factors as uncertainty, type of informational asymmetry and risk preferences.
- \* D (Satisfactory): The student has a good command of elementary concepts in the economic theory of uncertainty and asymmetric information, and is able to make practical calculations of problems concerning uncertainty and asymmetric information which economic actors may encounter. The student is aware of different economic outcomes and of different assumptions about uncertainty, type of informational asymmetry and risk preferences.
- \* E (Adequate): The student is able to describe elementary concepts in the economic theory of uncertainty and asymmetric information, and is able to make simple practical calculations of problems concerning uncertainty and asymmetric information which economic actors may encounter.
- \* Fx (Inadequate): The student is able to describe only some of the concepts in the economic theory of uncertainty and asymmetric information, and is able to apply approaches to solutions of simple problems, but is unable to perform an overall analysis.
- \* F (Totally Inadequate): The student is unable to describe central concepts in the economic theory of uncertainty and asymmetric information, and cannot make practical calculations of problems which economic actors may encounter.

If students fail a course unit and receive the grade Fx or F on an examination, there are no restrictions on how many times they are allowed to retake the examination in order to obtain a grade of E or higher.

## **Interim**

If this course is discontinued, students have the right to be examined on the course once per semester for three further semesters.

## **Required reading**

See course homepage available from [www.ne.su.se](http://www.ne.su.se).